

### **REMARKS**

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 were previously pending in this application. Within the Office Action, Claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 have been rejected. By the above amendment, Claims 1, 15, 49, 63, 73 and 87 have been amended. Accordingly, Claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 are currently pending.

#### **Double Patenting**

Within the Office Action, Claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 of co-pending Application No. 09/800,607, Claims 1-37 of co-pending Application No. 09/800,592, Claims 1-4, 6-15, 18-27, 30-39 and 42-51 of co-pending Application No. 09/801,076, Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 of co-pending Application No. 09/800,566, Claims 1, 3-12, 14-23, 25-34 and 36-42 of co-pending Application No. 09/799,032 and Claims 1, 4-11, 14-21, 24-31 and 34-38 of co-pending Application No. 09/801,140. The Applicant is filing a terminal disclaimer herewith to obviate this double patenting rejection over Application Numbers 09/800,607, 09/801,072, 09/801,076, 09/800,566, 09/799,032 and 09/801,140.

#### **Rejections under 35 U.S.C. § 112**

Within the Office Action, Claims 1, 15, 49, 63, 73 and 87 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, it is stated within the Office Action, that the claim language “utilizing a search module” should be changed to “utilizing a research module.” While the applicant does not agree with this rejection, as there is no other search module referred to within the claims, in order to further the prosecution of this application, the claims have all been amended to specify “utilizing a research module,” per the Examiner’s suggestion. Accordingly, the claims are definite and do particularly point and distinctly claim the subject matter which applicant regards as the invention. It is therefore respectfully requested that this rejection be withdrawn.

**Rejections under 35 U.S.C. § 103**

Within the Office Action, Claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,778,367 to Wesinger Jr. et al. (“Wesinger”) in view of U.S. Patent No. 5,613,110 to Stuart (“Stuart”). The applicant respectfully disagrees.

Wesinger teaches an automated on-line information service and directory, particularly for the world wide web. Wesinger teaches that a computer network and a database are used to provide a hardware-independent, dynamic information system in which the information content is entirely user-controlled. [Wesinger, Abstract] When accessing the database, Wesinger teaches that the user is given the options of searching the database, adding a new entry, updating an existing entry, changing the user’s password or logging in. [Wesinger, col. 5, lines 23-25] Wesinger further teaches that when the user selects the Search option, the user is allowed to select between different searching methods, including searching by Categories (going through a categories list), by Example (querying each field of the entries), and by Keyword (specifying a keyword). [Wesinger, col. 5, lines 30-40, Figure 2H] Wesinger does not teach that each utilization of the search module includes the availability of all types of available searches at any location within the database.

As recognized within the Office Action, Wesinger does not teach a dichotomous key search. Wesinger does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, Wesinger does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database. Wesinger only teaches searching the entire database, but not limiting the search to a segment or sub-segment of the database.

Stuart teaches an indexing method and apparatus facilitating a binary search of digital data. Stuart teaches that an ordered index file is created for archived report data wherein each index file contains a series of 4-byte offsets into the report data. [Stuart, Abstract] Stuart also teaches that upon later retrieval from the report data, a binary search is performed for a key(s) that is contained in a search query, using the index field offsets to determine the order in which to retrieve the report data fields. [Stuart, Abstract] According to the teachings of Stuart, the binary search resolves each key in the search query to a range of index offsets corresponding to report rows that match the query. [Stuart, Abstract] This binary search is not a dichotomous key search, as taught and claimed in the present invention.

Stuart also does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. There is no motivation to warrant the combination of Wesinger and Stuart. There is no hint, teaching or suggestion in either of Wesinger or Stuart to warrant their combination.

This is a classic case of impermissibly using hindsight to make a rejection based on obviousness. The Court of Appeals for the Federal Circuit has stated that “it is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” In Re Fritch, 972 F.2d, 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). As discussed above, Wesinger and Stuart do not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search, as claimed. As recognized within the Office Action, Wesinger does not teach a dichotomous key search. Stuart teaches utilizing a binary search, but not a dichotomous key search, as taught and claimed by the present invention. Within the Office Action, it is stated that

[i]t would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Stuart into the invention of Wesinger because Wesinger suggested that multiple search methods are available for user and the combination would reduce the memory access when using binary search, and providing user more search methodologies. [Office Action, page 6]

It is only with the benefit of the present claims, as a “template” that there is any motivation to combine the binary search of Stuart with the automated on-line information service of Wesinger. No such motivation can be found in the teachings of either of the references. Wesinger does teach utilizing different search methods, but not a dichotomous key method, which was available at the time of the filing of Wesinger. To conclude that the combination of Wesinger and Stuart is obvious, based on the teachings of these references, is to use hindsight based on the teachings of the present invention and to read much more into Wesinger and Stuart than their actual teachings. This is simply not permissible based on the directive from the Court of Appeals for the Federal Circuit.

It is well settled that to establish a *prima facie* case of obviousness, three basic criteria must be met:

- 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) there must be a reasonable expectation of success; and
- 3) the prior art reference, or references, must teach or suggest all the claim limitations. MPEP § 2143.

The burden of establishing a *prima facie* case of obviousness based on the teachings of Wesinger and Stuart has not been met within the Office Action.

There is no motivation to combine the teachings of Stuart with Wesinger. Stuart teaches facilitating a binary search of digital data. Stuart is only cited because it teaches a binary search. There is no hint, teaching or suggestion in either Stuart or Wesinger to motivate one skilled in the art to combine their teachings. It is only with the benefit of the presently claimed invention as a “template” that one would consider combining the binary search of Stuart with the automated on-line information service of Wesinger.

Even if considered proper, the combination of Wesinger and Stuart does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Neither, Wesinger, Stuart nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

In contrast to the teachings of Wesinger and Stuart, the method of and apparatus for performing a research task of the present invention, interchangeably utilizes a multitude of search methodologies. Specifically, utilizing a search module, a user is able to selectively utilize one or more search methodologies including keyword search, hierarchical search, dichotomous key search and parametric search to correlate a search criteria to a searchable database for generating one or more matching items. It is further taught within the present specification that

[a]t each node within the tree, the user is presented with the option of using any one or combinations of the four search methodologies utilized by the research system. The four search methodologies are keyword search, hierarchical tree search, dichotomous key search, and parametric search. Regardless as to which search methodology or search methodologies are used to reach a particular node, the user can utilize any of the four search methodologies to further refine the search and move further down the directory tree structure. The user may also navigate back up the directory tree structure to a higher node, and once again have the option to use any of the four search methodologies to refine the search from the current node and move further down the directory tree structure. [Present Specification, page 43, lines 6-15].

Therefore, a user is able to navigate the directory tree structure, utilizing any one of the four search methodologies in any combination to reach the desired result. As discussed above, neither Wesinger, Stuart nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search at any location within the database.

The independent Claim 1 is directed to a method of performing a research task within a searchable database. The method of Claim 1 comprises the steps of utilizing a research module to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a keyword search, a hierarchical search, and a dichotomous key search, utilizing the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the step of utilizing the research module to correlate a subsequent search criteria until the research task is completed *such that each utilization of the research module includes the availability of the keyword search, the hierarchical search, and the dichotomous key search at any location within the searchable database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the keyword search, the hierarchical search and the dichotomous key search at any location within the searchable database. For at least these reasons the independent Claim 1 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 4-14 depend on the independent Claim 1. As described above, the independent Claim 1 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 4-14 are all also allowable as being dependent on an allowable base claim.

The independent Claim 15 is directed to research system for performing a research task within a searchable database. The research system of Claim 15 comprises a research server configured to utilize a research module, to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a keyword search, a hierarchical search, and a dichotomous key search, to utilize the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed, and further wherein *each utilization of the research module includes the availability of the keyword search, the hierarchical search, and the dichotomous key search at any location within the searchable database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the keyword search, the hierarchical search and the dichotomous key search at any location within the searchable database. For at least these reasons, the independent Claim 15 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 17-24 depend on the independent Claim 15. As described above, the independent Claim 15 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 17-24 are all also allowable as being dependent on an allowable base claim.

The independent Claim 49 is directed to method of performing a research task within a searchable database. The method of Claim 49 comprises the steps of utilizing a research module to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a keyword search, a dichotomous key search, and a parametric search, utilizing the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the step of utilizing the research module to correlate a subsequent search criteria until the research task is completed *such that each utilization of the research module includes the availability of the keyword search, the dichotomous key search, and the parametric search at any location within the searchable database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the keyword search, the dichotomous key search, and the parametric search at any location within the searchable database. For at least these reasons, the independent Claim 49 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 52-62 depend on the independent Claim 49. As described above, the independent Claim 49 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 52-62 are all also allowable as being dependent on an allowable base claim.

The independent Claim 63 is directed to a research system for performing a research task within a searchable database. The research system of Claim 63 comprises a research server configured to utilize a research module to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a keyword search, a dichotomous key search, and a parametric search, to utilize the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a

sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed, and further wherein *each utilization of the research module includes the availability of the keyword search, the dichotomous key search, and the parametric search at any location within the searchable database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the keyword search, the dichotomous key search, and the parametric search at any location within the searchable database. For at least these reasons, the independent Claim 63 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 65-72 depend on the independent Claim 63. As described above, the independent Claim 63 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 65-72 are all also allowable as being dependent on an allowable base claim.

The independent Claim 73 is directed to a method of performing a research task within a searchable database. The method of Claim 73 comprises the steps of utilizing a research module to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a hierarchical search, a dichotomous key search, and a parametric search, utilizing the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the step of utilizing the research module to correlate a subsequent search criteria until the research task is completed *such that each utilization of the research module includes the availability of the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable*



*database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable database. For at least these reasons the independent Claim 73 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 76-86 depend on the independent Claim 73. As described above, the independent Claim 73 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 76-86 are all also allowable as being dependent on an allowable base claim.

The independent Claim 87 is directed to a research system for performing a research task within a searchable database. The research system of Claim 87 comprises a research server configured to utilize a research module to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, further wherein the research module includes a hierarchical search, a dichotomous key search, and a parametric search, to utilize the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of the research module to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed, and further wherein *each utilization of the research module includes the availability of the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable database*. As described above, the combination of Wesinger and Stuart is not proper. As further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable database. For at least these reasons the independent Claim 87 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 89-96 depend on the independent Claim 87. As described above, the independent Claim 87 is allowable over the teachings of Wesinger, Stuart and their combination.

Accordingly, Claims 89-96 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicant respectfully submits that claims 1, 4-15, 17-24, 49, 52-63, 65-73, 76-87 and 89-96 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,  
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Date: March 27, 2006

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**CERTIFICATE OF MAILING (37 CFR § 1.8(a))**

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

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